JAMES A. KUIPER

Ecological and Geographical Sciences Section
Environmental Science Division
Argonne National Laboratory

Educational Background:

M.S.	University of Michigan, Biometrics, 1986
Certificate	University of Michigan, Remote Sensing, 1986
B.S.	University of Michigan, Natural Resources, 1983

Professional Experience

2005-present	GIS Project Developer/Analyst
1992-2005	GIS Analyst/Biogeographer

Develops GIS databases, and plans and implements spatial data analysis, modeling, programming, and visualization of digital geographic data using a variety of Geographic Information System (GIS) software applications. Provides GIS-related training both internally and externally. Coordinates Geographic Information System (GIS) staff, activities, hardware, and software within the Environmental Science Division (EVS). Assists in GIS-related marketing and project development activities.

Currently leads GIS activities for the Solar Energy Web-based GIS Application, Renewable Energy Interactive Atlas, Upper Great Plains Wind Energy Programmatic Environmental Impact Statement (EIS), Tribal Energy Transmission System Planning workshops, Vulnerabilities for Existing Coal-Fired Power Plants report, and the Energy Policy Act, Section 368(b) Energy Corridor report.

Previously led GIS activities for the West-wide Energy Corridor Programmatic EIS, NRC Generic EIS for License Renewal of Nuclear Plants, Las Vegas Regional Air Quality Modeling Study, Trans Alaska Pipeline System Right of Way Renewal EIS, Alabama Chemical Stockpile Emergency Preparedness Program GIS, Argonne National Laboratory GIS, Aberdeen Proving Ground EIS, and many other GIS projects. Lead programmer for several GIS-based tools and systems, including the BLM ePlanning Decision Support Toolbox, BLM Enforcement Tracking and Air Management Mapping GIS, and U.S. Army Chemical Stockpile Emergency Preparedness Program Special Population Planner which was released as an open source application.

Summary of Previous Experience:

1991-1992 GIS Programmer, AT&T/Salem Technical Services, Schaumburg, Illinois

Designed and coded cadastral data translation and mapping software using ESRI Arc/Info Software Development Libraries, C, and Unix scripts. Provided training and technical support to other GIS professionals.

1987-1991 Programmer/Analyst, TRW/ESL Inc., San Bernardino, California

Programmed image processing and GIS tools using C, FORTRAN, and several macro languages. Performed spatial analysis with image processing, GIS, and statistical software.

1984-1986 Research/Teaching Assistant, University of Michigan, Ann Arbor, Michigan

Completed a variety of part time and full time assignments including statistical analysis of tree measurement data to create red pine and aspen timber volume models; field work for timber cruising and insect infestation studies; and pulpwood and firewood harvesting. Teaching assistant for "Introductory Natural Resources Statistics," "Digital Processing of Landsat Data," and "Introductory Cartography."

Research Interests:

Programming of GIS applications
Spatial modeling of natural and man-made systems
Integration of spatial models with GIS systems
3D visualization of geographic data and modeling results
Use of GIS to study environmental impacts

Publications:

As of October 2009, co-author of six journal articles and book chapters; lead developer of four software products; author or co-author of eighteen conference publications, ten software manuals, and twelve reports; and co-preparer of seven environmental impact statements.